

Discussion questions for Clean Power Plan proposed federal plan/model rules comment development

A. Should the federal plan adopt a rate standard or a mass standard?

While Minnesota is on a path to adopt its own plan, the federal plan decision on rate vs. mass still has important implications for Minnesota as it will influence potential trading partners and overall compliance flexibility.

1. **Should Minnesota weigh in on a preferred form for the federal plan standard?**
2. **If so, which approach is preferred for Minnesota?**
 - a. ***How should simplicity and ease of administration inform the preferred form of the standard?*** A mass standard offers a tried-and-true approach for limiting emissions, and measurement, reporting, tracking, etc. are all well understood and straightforward to implement. A rate approach requires additional steps—particularly a trading desk—to approve individual emission reduction projects and certify the emissions reduced before they can be sold.
 - b. ***How might treatment of planned and unplanned retirements of affected units inform the preferred form of the standard?*** Under a mass standard, EPA’s model rule and federal plan would allow retired units to continue to earn allowances for several years, and units that operate at a low level could continue to earn allowances indefinitely. In contrast, under a rate standard, affected units that do not generate electricity do not earn allowances.
 - c. ***How might future retirements of nuclear plants (if they are not relicensed) inform the preferred form of the standard?*** Under a mass standard, if a nuclear plant shuts down, the emissions reductions would need to be made up by other zero/low-emitting units. In contrast, if a nuclear plant shuts down under a rate standard, there is little¹ or no impact on compliance.
 - d. ***How might treatment of new natural gas combined cycle (NGCC) units inform the preferred form of the standard?*** Under a mass plan, new units COULD be covered through state-enforceable requirements but aren’t required to be. In contrast, new units CANNOT be covered by a rate plan.
3. **What are the issues preventing you from picking one over the other?**
 - o Lack of detailed modeling results illustrating the potential costs and emissions reductions under different scenarios, including the potential for emissions leakage?
 - o Uncertainty about allowance distribution?
 - o Uncertainty about activities eligible for emission rate credit (ERC) generation?
 - o Uncertainty about the availability of ERCs and/or allowances?

B. Other aspects of EPA’s proposed mass-based federal plan and model trading rule

EPA laid out a proposed design for a mass-based federal plan and model rule. In the event Minnesota opts for a mass approach, it might make sense to weigh in on the details. For example:

1. **Should Minnesota suggest restrictions on trading between states that do and do not include new sources in their trading programs?** In an effort to enable broad trading regions, EPA proposes to permit states that adopt a mass standard to link with other states adopting a mass standard. For example, EPA proposes that states under a federal mass standard can trade with states that opt for a mass-based state plan. EPA does not explicitly address the question of whether states that regulate new sources under state law and take the New Source Complement can trade with states that do not regulate new sources.² Are there any concerns with having mass-based states using the state-measure new source complement trading with states that don’t regulate new sources? Or can we trust that states with approved plans, including those that adopt set-asides, sufficiently address the leakage issue? What problems could result from such an approach?
2. **Should Minnesota comment on banking or borrowing of allowances and whether allowances should expire?** EPA is proposing that allowances can be banked for use in future years but not borrowed *from* future years, and notes that multi-year compliance periods already allow for some compliance flexibility similar to what borrowing would offer. EPA also proposes that allowances do not expire and can be banked/used for compliance in perpetuity. Should MN comment on whether allowances should have a “shelf-life” and if so, how long should allowances be usable for compliance?

¹ There would be a small impact if nuclear up-rates were used to meet compliance.

² EPA does ask a question about linking the federal plan to state plans that include non-affected emission sources. However, this question appears directed more at California’s trading system.

3. **Should Minnesota comment on treatment of allocations for retiring/non-operating affected EGUs in federal plan states?** EPA proposed that allowances for affected EGUs be redirected to RE set-asides after an affected unit ceases to operate for two consecutive years. Is this treatment of allocations appropriate? Xcel Sherco's Unit 3 was offline for a full two years for repair, and under EPA's proposed approach, would have lost its "share" of allowances. Should EPA provide a longer time period in which retired/idled units receive allowances?

C. Aspects of EPA's proposed rate-based federal plan and model trading rule

EPA laid out a proposed design for a rate-based federal plan and model rule. In the event MN opts for a rate approach, it might make sense to weigh in on the details. For example:

1. **Should Minnesota comment on whether "other low- and zero-emitting non-BSER measures" should qualify as emission reduction credits?** This could be desirable for both federal plan states and model rule states in order to take advantage of a broad set of mitigation options and help minimize compliance costs.
 - a. Should Minnesota suggest restrictions on trading between states who allow ERC generation from the broader pool of resources ("other low-and zero-emitting non-BSER measures") and those that don't, to prevent "forum shopping" among states?
2. **Should Minnesota weigh in on EPA's proposed methodology for calculating emissions reduction credits stemming from incremental NGCC displacing coal-fired electric generation (e.g., gas-shift ERCs).** This methodology is potentially applicable to both the federal plan and the model rule. Are stakeholders comfortable with a methodology that rewards gas-shift credits to all NGCC generation rather than to incremental (increased from baseline capacity) NGCC generation? Advantages of the proposed approach are that it offers certainty to natural gas units on the value of the gas-shift ERC incentive, potentially affecting their bids into the electric market, and also avoids the shifting among NGCC units (a form of gaming) that can occur under alternatives. However, one effect is that states like Minnesota with lower amounts of NGCC generation in 2012 could see a smaller incentive from gas-shift ERCs relative to states with higher levels of 2012 NGCC generation than if credits were awarded just for incremental generation.
3. **Should Minnesota comment on banking or borrowing of ERCs?** EPA proposes to allow banking across the interim compliance periods, and requests comments on whether banking should be permitted between the interim and final compliance periods. EPA also asks about methods that would allow borrowing from future compliance periods while maintaining the integrity of the compliance obligations, and whether ERCs should be allowed to expire (as proposed, they do not expire). If ERCs should expire, what would an appropriate shelf-life be?

D. Clean Energy Incentive Program

In addition to the formal comments requested under the regulatory docket for the proposed federal plan and model rules, EPA is also inviting comments for a non-regulatory docket devoted to seeking feedback on the design and implementation of the Clean Energy Incentive Program. These non-regulatory comments are due by December 15, 2015. For more information, visit: <http://www.regulations.gov/#!docketDetail;D=EPA-HQ-OAR-2015-0734>

EPA is making available an opportunity to get extra tradable allowances or credits for certain types of early action. As proposed, the Clean Energy Incentive Program (CEIP) is a required element of a federal plan and is also available as an option to states developing their own plans. States with mass-based state plans that opt to include the CEIP create a set-aside from allowances available in the first compliance period for renewable generation and energy efficiency savings in low income communities in 2020-2021 (pre-CPP compliance period). State set aside allowances are granted to solar and wind projects at half the value of the energy produced, with an EPA match providing the remaining value of the clean energy incentive. State set aside allowances are granted to energy efficiency projects in low income communities at the full value of the energy saved. An EPA match provided at the same level would then double the incentive. Under the rate-based system, the CEIP can be used to generate ERCs with matching ERCs available from EPA in an amount equivalent to the size of the matching allowance pool in the mass program.

1. **Should Minnesota weigh in on the total number of CEIP matching allowances available for Minnesota³ and/or the amounts available to be made available for wind and solar installations vs. energy efficiency in low income communities?** As proposed, Minnesota's share of matching allowances would be distributed by looking at Minnesota's overall compliance obligation in 2030 as compared to 2012, and the percentage this

³ While seemingly decided in the final rule, this issue was included in a recent list of CEIP provisions about which the EPA is seeking stakeholder input.

represents of the participating state compliance obligation. The proposed amount of CEIP allowances for Minnesota is 2,002,903 short tons. Moreover, EPA is proposing to divide the total amount of the set aside into separate reserves of matching allowances for eligible renewables and energy efficiency, but has not defined a methodology for doing so. Should we offer recommendations? Should this determination be left to the states? Also, how many allowances should be distributed for each MWh generated or saved under rate and mass programs to ensure equivalency?

2. **Should Minnesota make recommendations for the types of projects that would qualify as energy efficiency in low income communities?** In particular, should we suggest a definition of “low income community” for CEIP projects and/or suggest criteria for eligible projects? Should distributed RE projects (such as solar gardens) in low income communities qualify for 2X the credit of general RE (like EE in low income communities)?
3. **Should Minnesota weigh in on issues related to implementation of a CEIP under a rate standard to ensure equivalency to a mass standard?** In particular, should we comment on how to convert the 300 million short tons of CO₂ to be used in the CEIP to equivalent ERCs under a rate program (in the form of MWhs)? Similarly, should we offer guidance on a mechanism for maintaining the stringency of rate-based emission standards during the compliance periods to account for the issuance of early action ERCs for MWh generated or avoided in 2020 and/or 2021? Under a mass standard, EPA’s model rule and federal plan call for taking allowances out of the first three-year compliance period but they have not proposed an equivalent method for rate goals.

E. Proposed set-asides to address emissions leakage under a federal mass-based plan

The final rule emission guidelines require states adopting a mass-based plan to address emissions leakage or include new sources. EPA defines emissions leakage as “the potential of an alternative form of implementation of the BSER to create a larger incentive for affected EGUs to shift generation to new fossil fuel-fired EGUs relative to what would occur when the implementation of the BSER took the form of standards of performance incorporating the subcategory-specific emission performance rates representing the BSER.” In slightly simpler terms, under a rate-based system, cleaner/more efficient existing NGCC are incentivized to run (while complying with the emissions standard) so there is less likelihood a state meets its Clean Power Plan standards simply by removing generation from the pool of affected (existing) units. Under a mass cap, because ALL existing fossil fuel generation has to use allowances, there is no incentive to keep generation in the pool of existing units. Because new units aren’t subject to the mass cap, generation could shift to them, and a state could technically see its affected units comply with the cap without seeing the full benefit of emissions reductions expected without the significant shift to new (un-covered) sources.

In the proposed federal plan and model rule, EPA is taking comment on the details of using set-asides to encourage alternatives to investments in new NGCC units.⁴ EPA’s federal plan/model rule provides for two allowance set asides that together offer a presumptively approvable approach to addressing emissions leakage for mass-based emissions standard plans. The first is an output-based updating set aside for existing NGCC EGUs to encourage them to operate at capacity factors above 50%, and the second is a set aside for qualifying renewable energy (RE). The federal plan proposes to size the output-based updating set aside at 10% of the 2012 net summer capacity for affected NGCC units in the state, which for Minnesota is equivalent to 909,724 allowances from each compliance period, starting with the second compliance period. The federal plan sizes the RE set aside at 5% of total allowances in each interim compliance period. In the first interim compliance period in MN, 1,365,158 allowances would be allocated to RE providers, declining to 1,173,839 allowances in the final interim compliance period. In both set-asides, surplus allowances revert directly back to the general allowance pool and are redistributed to affected units based on the original allocation strategy.

1. **Should Minnesota weigh in on the set-aside approaches to address leakage as provided in the proposed federal plan and model rule?**
2. **Do EPA’s proposed set-asides offer a robust approach to addressing potential emissions leakage?** Will the set asides lead to increased use of existing NGCC units and increased investments in RE, thereby avoiding the need to build new NGCC as compared to the amount that would be deployed under a rate standard with subcategory-specific emissions rates? The incentive offered to eligible NGCC generation is 1,030 lbs/MWh. The incentive to renewable energy generation depends on the total number of eligible MWhs and how this relates to the

⁴ EPA discusses the option of developing state measures to cap emissions from new sources in return for the New Source Complement as part of the final emissions guidelines, so this is not up for comment. EPA also does not request comment on the analysis required to demonstrate that unique factors or characteristics mitigate the potential for leakage.

allowances available in the 5% set aside. (Note that EPA is requesting comment on other amounts of allowances for the renewable energy set aside, from 1-10%.)

3. **If allowances are allocated as proposed, are there enough available for allocation to EGUs or for other purposes?**
4. **Does the output-based updating set-aside, as proposed, make sense for Minnesota, or should we recommend changes?** As noted previously, in the case of the output based set aside, only generation from existing NGCCs operating higher than 50% capacity is eligible – this is intended to incentivize generation that would not have occurred absent this set-aside; however, in many states, NGCC capacity is far lower, and business-as-usual capacity factors absent the set-aside could be far lower than 50%. Should an output-based updating set aside consider each state’s typical NGCC capacity factor (or even each unit’s typical capacity factor) in terms of defining the point at which NGCC units can earn allowances from the output-based updating set aside?
5. **Does the renewable energy set-aside, as proposed, make sense for Minnesota, or should we recommend changes?** In particular, as proposed, only renewable energy eligible for ERC credits under a rate standard would qualify. Should energy efficiency, combined heat and power (CHP) and nuclear uprates also be eligible? Further, as proposed, only RE in Minnesota would qualify to earn allowances from Minnesota’s RE set-aside. However, should RE outside the state qualify?
6. **Are there other strategies (set asides or other approaches) that would be more effective and/or less onerous to address incremental leakage to new sources** that EPA could include in its final federal plan/model rule?
7. **Could leakage be addressed as a plan “contingency measure,”** with a state providing information on leakage to new sources before needing to implement set asides?